

Attorney Docket No.: J3685(C)
Serial No.: 10/526,850
Filed: March 2, 2005
Confirmation No.: 9359

REMARKS

Reconsideration of the application, as amended, is respectfully requested.

Claims 12 and 13 have been recast in composition form, with the aqueous dispersion of composite particles being prepared by the described processes. See, for example, page 5, lines 16 to 24. See also Example 1 which describes the preparation of aqueous dispersions of composite particles, and Example 2 wherein the aqueous dispersions of Example 1 are added to a conditioner base to form a series of hair treatment compositions.

Claim 17 is cancelled without prejudice.

New claim 18 identifies the hair benefit agent as comprising a finely divided solid, and new claim 19 identifies the hair benefit agent as comprising zinc pyrithione. See the specification at page 25, lines 18 to 23.

It is respectfully submitted that the cancellation of claim 17, and the amendment of claims 12 and 13 overcome the rejections under 35 U.S.C. §101 and 112.

In view of the amendments set forth above, and the remarks that follow, reconsideration and allowance of the claims as hereby amended is respectfully requested.

The subject invention is directed to hair treatment compositions that include a aqueous dispersion of composite particles, which particles comprise a clay with a net surface charge, a charged organic molecule comprising at least 6 carbon atoms and of opposite charge to the surface of the clay, and a water insoluble hair benefit agent

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that is immiscible with the charged organic molecules. Thus, the clay, charged organic molecule, and water insoluble hair benefit agent are combined so as to form composite particles. Without wishing to be bound to theory it is postulated that the clay and charged organic molecule form a complex within which the hair benefit agent may be trapped or encapsulated (it being a requirement of the subject claims that hair benefit agent is insoluble with the charged organic molecule).

The use of composite particles as described by the subject claims in hair treatment compositions improves the deposition of the hair benefit agent onto the hair.

Claims 1-9, 11 and 14-16 stand rejected under 25 U.S.C. §103(a) as unpatentable over EP 0 500 941 (Nakama et al.). Claims 1, 9 and 10 are rejected under 35 U.S.C. § 103(a) as unpatentable over Nakama et al. in further view of US 6399690 (Lan et al.). These rejections are respectfully traversed.

Nakama et al. is directed to a complex obtained by mixing an ampholytic surfactant and/or a semi-polar surfactant (referred to as an ampholytic surfactant) and a higher fatty acid to form an emulsified composition. Optionally, the patent includes a clay (which may be an organic modified clay obtained by treating clay minerals with a quaternary ammonium type cationic surface active agent). Nakama et al. does not disclose or suggest the production of composite particles formed from a clay with a net surface charge, a charged organic molecule, and a water insoluble hair benefit agent that is immiscible with the charged organic molecule. In the exemplified compositions, Nakama et al. introduces its clay component as part of the ingredients that form the aqueous phase of the emulsions therein described; it does not exemplify emulsions where the clay is added as part of a composite particle.

Lan et al. discloses the preparation of a variety of intercalated layered materials. In one embodiment the Lan et al. discloses combining the clay with a polar organic compound or a polar organic compound-containing composition carrier or an

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organic solvent to provide viscous carrier compositions for the administration of an active compound that is dissolved or dispersed in the carrier or solvent. These product forms include the thixotropic gels referred to in column 8 at lines 28 to 53. In a separate and different embodiment, the intercalates are prepared by forming clay containing plastic nanocomposite compositions, for example, by melt compounding the clay and plastic components. See for example, column 8, lines 54 to 62.

Simultaneous or later addition of a co-intercalant oligomer or polymer to the onium ion-intercalated layered material, such as by **direct compounding in an extruder** to co-intercalate the oligomer or polymer between adjacent spaced phyllosilicate platelets and optionally separate (exfoliate) the layered material into individual platelets, provides the co-intercalated layered material for admixture **with a matrix polymer to form a nanocomposite composition**. (Emphases added.)

The various thermoplastic and thermosetting and thermoplastic materials referred to in column 18 are representative of the plastic matrix materials that may be used in the formation of the plastic nanocomposites. Melt compounded plastic nanocomposite compositions are not the composite particles described by the subject claims.

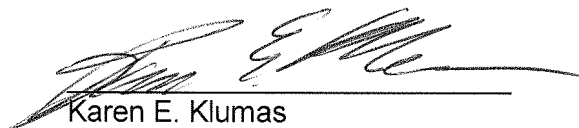
It is respectfully submitted that hair treatment compositions comprising the composite particles described by the subject claims are not disclosed or suggested by Lan et al., which does not cure the deficiencies of Nakama et al.

In view of the foregoing, reconsideration and allowance of the subject claims is respectfully requested.

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If a telephone conversation would be of assistance in advancing the prosecution of the present application, applicants' undersigned attorney invites the Examiner to telephone at the number provided.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Karen E. Klumas', is written over a horizontal line.

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